Chapter 10 | Engineering Assessment Requirements for Hazardous Waste Tanks

"New" and "Existing" Tanks [1]

These terms are used to determine which regulations apply. Generally, tank systems installed before July 1, 1991 are considered "existing," while those installed or modified after that date are considered "new." The applicable code sections are CCR 66265.191 for existing tank systems, and 66265.192 for new tanks.

What's Required? [2]

New, non-RCRA tank systems require secondary containment and an independent Professional Engineering (PE) assessment every 5 years. Existing tank systems installed without secondary containment are required to have an annual independent PE certification. Existing tank systems installed and operated with proper secondary containment and leak detection are exempt from the PE certification requirement.

Selecting an Engineer

There are many engineering firms and many types of engineers. Regulations require the engineer to be registered as a professional engineer in the State of California. An engineer must also be independent, meaning that he or she is not regularly employed by the firm hiring him/her to certify the tank system. When selecting an engineer, ask how many hazardous waste tank system assessments they have done.

What Is Included In A "Tank System"?

Tanks, ancillary equipment, and floor sumps are the most common components of a tank system. "Tank System" means a hazardous waste transfer, storage or treatment tank and its associated ancillary equipment and containment system. A "Tank" is a stationary device, designed to contain hazardous waste and constructed of non-earthen materials providing structural support. A filter press unit can meet the definition of a tank. "Ancillary equipment" includes, but is not limited to, piping, valves pumps, and trenches used to distribute or control the flow of hazardous waste **from its point of generation** to a storage or treatment tank, between hazardous waste storage and treatment tanks, to a point of disposal onsite, or to a point of shipment for disposal offsite. A "Sump" is any pit that meets the definition of a tank that collects hazardous waste for transport to a hazardous waste storage or treatment area. There are three types of sumps, depending on their use:

- ✓ **Emergency containment** - Sumps that are used for emergency containment are exempt from secondary containment and PE certification if they are kept clean and dry except after rare and unpredictable events.
- ✓ **Secondary containment -** Sumps used as secondary containment must meet all secondary containment standards.
- ✓ **Primary containment -** Sumps used as primary containment, routinely accumulate waste and therefore are fully regulated as tanks.

At this time, **portable tanks** used to ship or transport hazardous waste are not considered to be stationary tanks, and therefore not subject to all hazardous waste tank standards.

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Let's Consider an Example:

A corrosive waste (with a pH greater than 12.5 or less than 2) is discharged into a sump that is pumped into a pipe conveying waste to a tank, but the waste is diluted before it even reaches a treatment tank.

What is included in the tank system?

The sump, pipe and tank are all part of this hazardous waste tank system.

Certification Statement [3]

An independent, professional engineer, registered in California, must certify the tank system assessment with the following wording:

"I certify under penalty of perjury of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations."

Most Common Deficiencies Seen in PE Certifications

- ✓ Failure to address all aspects of the required report: all parts of CCR 66265.192(k) for "new" tank systems, or all parts of 66265.191(g) for "existing" tank systems.
- ✓ Evaluations of components in the tank system report are omitted.
- ✓ The proper certification statement language is not included.
- ✓ Failure to evaluate the entire tank system (piping from the points of generation to the tanks are often neglected).
- ✓ The results of the tightness testing required by 66265.192 (k)(10) or the results of the leak test/inspection required by 66265.191(g)(9) are omitted.

Limited Exemptions from Secondary Containment for Existing Tank Systems [4]

"Existing" tank systems (pre-1991) without secondary containment, and less than 15 years of age, may not need secondary containment if they have an annual integrity assessment performed by a registered professional engineer. Documentation of the tank installation and the integrity assessments is required in order to apply this rule. However, when the tank system reaches 15 years of age, it must be retrofitted with secondary containment and leak detection, or replaced. Modification or replacement of the system, including the addition of secondary containment, eliminates this exception and the tank system would then need an engineering certification.

Small Quantity Generators [5]

Small Quantity Generators {those who generate less than 1000 kg of hazardous waste per month (including wastewater to be treated)} are subject to different requirements. Tanks/Tank Systems utilized by Small Quantity Generators**:**

- ✓ Do not need Engineer's Assessment or Exemption or Secondary Containment.

- ✓ Uncovered tanks need 2 feet freeboard unless equipped with a containment structure (e.g. dike or trench) with a capacity that equals or exceeds the volume of the top 2 feet of tank.
- ✓ Must be inspected each day to check the level of waste, and at least weekly to detect corrosion or leaking of fixtures and seams.
- ✓ Must be labeled as "Hazardous Waste."
- ✓ Must have accumulation start date on the tank or maintained in the facility log.

Note: Facilities using tanks as a part of a treatment process regulated under the Permit by Rule or Conditional Authorization tiers may still be required to meet hazardous waste tank standards even if the facility is a small quantity generator.

REFERENCES:

1. Title 22 California Code of Regulations (CCR) Section 66265.190 to 66265.202
2. Title 22 CCR Section 66265.192(h)
3. Title 22 CCR Section 66270.11(d)
4. Title 22 CCR Section 66265.193(a)
5. Title 22 CCR Section 66262.34(d); and 40 Code of Federal Regulations 262.34(d)(3)